Attorney Docket No.: 38005-0186

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Claim 1. (Currently amended). A compound of the formula I,

in which

R1, R2, R3, R4, independently of one another, are H[[;]], F, Cl, Br, I, ON, N3, NO2, OH, O(C1-C8)-alkyl, O(C3-C8)-cycloalkyl, O-CH2-phenyl, O-phenyl, O-CO-(C1-C8)-alkyl, O-CO-(C3-C8)-cycloalkyl, where in the alkyl radicals up to seven hydrogen atoms may be replaced by fluorine; S(O)0-2(C1-C8)-alkyl, S(O)0-2(C3-C8)-cycloalkyl, where in the alkyl radicals up to seven hydrogen atoms may be replaced by fluorine; NH2, NH-(C1-C8)-alkyl, NH-(C3-C8)-cycloalkyl, N[(C1-C8)-alkyl]2, N[(C3-C8)-cycloalkyl] 2, NH-CO-(C1-C8)-alkyl, NH-CO-(C3-C8)-cycloalkyl;

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SO<sub>3</sub>H, SO<sub>2</sub>-NH<sub>2</sub>, SO<sub>2</sub>-NH-(C<sub>1</sub>-C<sub>8</sub>)-alkyl, SO<sub>2</sub>-NH-(C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl;

 $SO_2$ -( $C_1$ - $C_6$ )-alkyl;

NH-SO<sub>2</sub>-NH<sub>2</sub>, NH-SO<sub>2</sub>-(C<sub>1</sub>-C<sub>8</sub>)-alkyl, NH-SO<sub>2</sub>-(C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl;

O-CH<sub>2</sub>-COOH, O-CH<sub>2</sub>-CO-O( $C_1$ - $C_8$ )-alkyl, COOH, COO( $C_1$ - $C_8$ )-alkyl,

CO-O-(C3-C8)-cycloalkyl, CO-NH2, CO-NH(C1-C8)-alkyl, CO-

 $N[(C_1-C_8)-alkyl]_2;$ 

 $(C_1-C_8)$ -alkyl,  $(C_3-C_8)$ -cycloalkyl,  $(C_2-C_8)$ -alkenyl,  $\underline{\mathbf{or}}$   $(C_2-C_8)$ -alkynyl,

where in the alkyl, alkenyl, and alkynyl groups one to seven hydrogen

atoms may be replaced by fluorine;

or one hydrogen may be replaced by OH, OC(O)CH<sub>3</sub>, O-CH<sub>2</sub>-Ph,

NH<sub>2</sub>, NH-CO-CH<sub>3</sub> or N(COOCH<sub>2</sub>Ph)<sub>2</sub>

phenyl, 1- or 2-naphthyl,

 $5-tetrazolyl, \ 1-[(C_1-C_6)-alkyl]-5-tetrazolyl, \ 2-[(C_1-C_6)-alkyl]-5-tetrazolyl, \ 2-[(C_1-C_6$ 

1-imidazolyl,

1-or 4-[1,2,4]-triazolyl,

2-or 3-thienyl,

2-or 3-furyl,

2-, 3- or 4-pyridyl,

2-, 4- or 5-oxazolyl,

3-, 4- or 5-isoxazolyl,

2-, 4- or 5-thiazolyl,

3-, 4- or 5-isothiazolyl,

where the aryl radical or heterocycle may be substituted up to two times by

F, Cl, Br, CN,

OH,  $(C_1-C_4)$ -alkyl,  $CF_3$ ,  $O-(C_1-C_4)$ -alkyl,

 $S(O)_{0-2}(C_1-C_6)$ -alkyl,  $NH_2$ ,  $NH-SO_2-(C_1-C_4)$ -alkyl;

COOH, CO-O-(C1-C4)-alkyl, CO-NH2 and where in the alkyl groups

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one to seven hydrogen atoms may be replaced by fluorine; or

#### R2 and R3 together form the radical -O-CH2-O-;

- X is  $[[S,]]SO, SO_2$ ;
- Y is  $(CH_2)_p$ , where p may be 0,1, 2 or 3;
- is (C<sub>1</sub>-C<sub>18</sub>)-alkyl, (C<sub>3</sub>-C<sub>4</sub>)-cycloalkyl, (C<sub>6</sub>-C<sub>8</sub>)-cycloalkyl,
  where in the alkyl groups up to seven hydrogen atoms may be
  replaced by fluorine;
  (CH<sub>2</sub>)<sub>1-6</sub>-COOH, (CH<sub>2</sub>)<sub>1-6</sub>-COO-(C<sub>1</sub>-C<sub>6</sub>)-alkyl, (CH<sub>2</sub>)<sub>1-6</sub>-CONH<sub>2</sub>
  CH<sub>2</sub>-CH(NHR10)-COR11, where R10 may be H or C(O)-(C1-C6)-alkyl
  and R11 may be OH, O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl or NH<sub>2</sub>;

phenyl, 1- or 2-naphthyl, <u>or</u> biphenyl, <del>or a heterocyclic radical,</del> where the rings or ring systems are in each case substituted up to three times by

F, Cl, Br, I, CN, OH, O( $C_1$ - $C_8$ )-alkyl, O( $C_3$ - $C_8$ )-cycloalkyl, O-CO-( $C_1$ - $C_8$ )-alkyl, O-CO-( $C_3$ - $C_8$ )-cycloalkyl, S(O)<sub>0-2</sub>( $C_1$ - $C_8$ )-alkyl, S(O)<sub>0-2</sub>( $C_3$ - $C_8$ )-cycloalkyl, NH-( $C_1$ - $C_8$ )-alkyl, NH-( $C_3$ - $C_8$ )-cycloalkyl, N[( $C_1$ - $C_8$ )-alkyl]<sub>2</sub>, N[( $C_3$ - $C_8$ )-cycloalkyl]<sub>2</sub>, NH-CO-( $C_1$ - $C_8$ )-alkyl, NH-CO-( $C_3$ - $C_8$ )-cycloalkyl, SO<sub>3</sub>H; SO<sub>2</sub>-NH<sub>2</sub>, SO<sub>2</sub>-NH-( $C_1$ - $C_8$ )-alkyl, SO<sub>2</sub>-NH-( $C_3$ - $C_8$ )-cycloalkyl, NH-SO<sub>2</sub>-NH<sub>2</sub>; NH-SO<sub>2</sub>-( $C_1$ - $C_8$ )-alkyl, NH-SO<sub>2</sub>-( $C_3$ - $C_8$ )-cycloalkyl; O-CH<sub>2</sub>-COOH, O-CH<sub>2</sub>-CO-O( $C_1$ - $C_8$ )-alkyl, COOH, CO-O( $C_1$ - $C_8$ )-alkyl, CO-NH( $C_1$ - $C_8$ )-alkyl, CO-NH( $C_1$ - $C_8$ )-alkyl, CO-NH( $C_1$ - $C_8$ )-alkyl, CO-N[( $C_1$ - $C_8$ )-alkyl]<sub>2</sub>;

 $(C_1-C_8)$ -alkyl,  $(C_3-C_8)$ -cycloalkyl, where in the alkyl groups in each

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case one to seven hydrogen atoms may be replaced by fluorine;

is (CH<sub>2</sub>)<sub>0-6</sub>-R9, (CH<sub>2</sub>)<sub>0-6</sub>-COOH, (CH<sub>2</sub>)<sub>0-6</sub>-COO-(C<sub>1</sub>-C<sub>6</sub>)-alkyl, (CH<sub>2</sub>)<sub>0-6</sub>-CONH<sub>2</sub>, (CH<sub>2</sub>)<sub>0-6</sub>-CH(NHR15)-COR16, F, Cl, Br, CN, (C<sub>1</sub>-C<sub>18</sub>)-alkyl, (C<sub>3</sub>-C<sub>4</sub>)-cycloalkyl, (C<sub>6</sub>-C<sub>8</sub>)-cycloalkyl, where in the alkyl radicals or cycloalkyl radicals up to seven hydrogen atoms may be replaced by fluorine;

- R15 is H, C(O)- $(C_1$ - $C_6)$ -alkyl;
- R16 is OH, O- $(C_1-C_6)$ -alkyl, NH<sub>2</sub>
- R7 is  $(CH_2)_{0-4}$ -R12, H,  $(C_1$ - $C_{12}$ )-alkyl,  $(C_3$ - $C_4$ )-cycloalkyl,  $(C_6$ - $C_8$ )-cycloalkyl,  $COO(C_1$ - $C_6$ )-alkyl,  $COO(C_3$ - $C_8$ )-cycloalkyl, where in the alkyl radicals or cycloalkyl radicals up to seven hydrogen atoms may be replaced by fluorine;
- R8 is  $(CH_2)_{0-4}$ -R14,  $(C_1$ - $C_{12}$ )-alkyl,  $(C_3$ - $C_4$ -cycloalkyl,  $(C_6$ - $C_8$ )-cycloalkyl, where in the alkyl or cycloalkyl radicals up to seven hydrogen atoms may be replaced by fluorine atoms;

# R9, R12, R14 independently of one another are

phenyl, 1- or 2-naphthyl, <u>or</u> biphenyl, <del>or a heterocyclic radical</del>, where the rings or ring systems are in each case substituted up to three times by

F, Cl, Br, I, CN, OH, O( $C_1$ - $C_8$ )-alkyl, O( $C_3$ - $C_8$ )-cycloalkyl, O-CO-( $C_1$ - $C_8$ )-alkyl, O-CO-( $C_3$ - $C_8$ )-cycloalkyl, S(O)<sub>0-2</sub>( $C_1$ - $C_8$ )-alkyl, S(O)<sub>0-2</sub>( $C_3$ - $C_8$ )-cycloalkyl, NH<sub>2</sub>, NH-( $C_1$ - $C_8$ )-alkyl, NH-( $C_3$ - $C_8$ )-cycloalkyl, N[( $C_1$ - $C_8$ )-alkyl]<sub>2</sub>, N[( $C_3$ - $C_8$ )-cycloalkyl]<sub>2</sub>, NH-CO-( $C_1$ - $C_8$ )-alkyl, NH-CO-( $C_3$ -

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C<sub>8</sub>)-cycloalkyl, SO<sub>3</sub>H; SO<sub>2</sub>-NH<sub>2</sub>, SO<sub>2</sub>-NH-(C<sub>1</sub>-C<sub>8</sub>)-alkyl, SO<sub>2</sub>-NH-(C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl, NH-SO<sub>2</sub>-NH<sub>2</sub>; NH-SO<sub>2</sub>-(C<sub>1</sub>-C<sub>8</sub>)-alkyl, NH-SO<sub>2</sub>-(C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl; O-CH<sub>2</sub>-COOH, O-CH<sub>2</sub>-CO-O(C<sub>1</sub>-C<sub>8</sub>)-alkyl, COOH, CO-O(C<sub>1</sub>-C<sub>8</sub>)-alkyl, CO-O(C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl, CO-NH<sub>2</sub>, CO-NH(C<sub>1</sub>-C<sub>8</sub>)-alkyl, CO-N[(C<sub>1</sub>-C<sub>8</sub>)-alkyl]<sub>2</sub>; (C<sub>1</sub>-C<sub>8</sub>)-alkyl, (C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl, where in the alkyl groups in each case one to seven hydrogen atoms may be replaced by fluorine;

and its physiologically acceptable salts.

Claim 2. (Currently amended). A compound of the formula I as claimed in claim 1 in which

R1, R2, R3, R4, independently of one another, are H, F, Cl, Br, N3, O( $C_1$ - $C_8$ )-alkyl, or ( $C_1$ - $C_8$ )-alkyl and where in the alkyl groups one to seven hydrogen atoms may be replaced by fluorine;

where in each case at least one of the radicals R1, R2, R3 and R4 is different from hydrogen;

- X is [[S,]]SO, or SO<sub>2</sub>;
- Y is  $(CH_2)_p$ , where p may be 0, 1, 2, or 3;
- is (C<sub>1</sub>-C<sub>18</sub>)-alkyl, (C<sub>3</sub>-C<sub>4</sub>)-cycloalkyl, (C<sub>6</sub>-C<sub>8</sub>)-cycloalkyl,
  where in the alkyl groups up to seven hydrogen atoms may be
  replaced by fluorine;
  (CH<sub>2</sub>)<sub>1-6</sub>-COOH, (CH<sub>2</sub>)<sub>1-6</sub>-COO-(C<sub>1</sub>-C<sub>6</sub>)-alkyl, (CH<sub>2</sub>)<sub>1-6</sub>-CONH<sub>2</sub>
  CH<sub>2</sub>-CH(NHR10)-COR11, where R10 may be H or C(O)-(C<sub>1</sub>-C<sub>6</sub>)-alkyl

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and R11 may be OH, O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl or NH<sub>2</sub>;

[[P]]phenyl, 1- or 2-naphthyl, or biphenyl, or a heterocyclic radical, where the rings or ring systems are in each case substituted up to three times by

F, Cl, Br, I, CN, OH, O( $C_1$ - $C_8$ )-alkyl, O( $C_3$ - $C_8$ )-cycloalkyl, O-CO-(  $C_1$ - $C_8$ )-alkyl, O-CO-( $C_3$ - $C_8$ )-cycloalkyl, S(O)<sub>0-2</sub>( $C_1$ - $C_8$ )-alkyl, S(O)<sub>0-2</sub>( $C_3$ - $C_8$ )-cycloalkyl, NH-( $C_1$ - $C_8$ )-alkyl, NH-( $C_3$ - $C_8$ )-cycloalkyl, N[( $C_1$ - $C_8$ )-alkyl]<sub>2</sub>, N[( $C_3$ - $C_8$ )-cycloalkyl]<sub>2</sub>, NH-CO-( $C_1$ - $C_8$ )-alkyl, NH-CO-( $C_3$ - $C_8$ )-cycloalkyl, SO<sub>3</sub>H; SO<sub>2</sub>-NH<sub>2</sub>, SO<sub>2</sub>-NH-( $C_1$ - $C_8$ )-alkyl, SO<sub>2</sub>-NH-( $C_3$ - $C_8$ )-cycloalkyl, NH-SO<sub>2</sub>-NH<sub>2</sub>; NH-SO<sub>2</sub>-( $C_1$ - $C_8$ )-alkyl, NH-SO<sub>2</sub>-( $C_3$ - $C_8$ )-cycloalkyl; O-CH<sub>2</sub>-COOH, O-CH<sub>2</sub>-CO-O( $C_1$ - $C_8$ )-alkyl, COOH, CO-O( $C_1$ - $C_8$ )-alkyl, CO-O-( $C_3$ - $C_8$ )-cycloalkyl, CO-NH<sub>2</sub>, CO-NH( $C_1$ - $C_8$ )-alkyl, CO-N[( $C_1$ - $C_8$ )-alkyl]<sub>2</sub>;

 $(C_1-C_8)$ -alkyl,  $(C_3-C_8)$ -cycloalkyl, where in the alkyl groups in each case one to seven hydrogen atoms may be replaced by fluorine;

R6 (CH<sub>2</sub>)<sub>0-6</sub>-R9, (CH<sub>2</sub>)<sub>0-6</sub>-COOH, (CH<sub>2</sub>)<sub>0-6</sub>-COO-(C<sub>1</sub>-C<sub>6</sub>)-alkyl, (CH<sub>2</sub>)<sub>0-6</sub>-CONH<sub>2</sub>, (CH<sub>2</sub>)<sub>0-6</sub>-CH(NHR15)-COR16, F, Cl, Br, CN, (C<sub>1</sub>-C<sub>18</sub>)-alkyl, (C<sub>3</sub>-C<sub>4</sub>)-cycloalkyl, (C<sub>6</sub>-C<sub>8</sub>)-cycloalkyl, where in the alkyl radicals or cycloalkyl radicals up to seven hydrogen atoms may be replaced by fluorine;

- R15 is H, C(O)- $(C_1$ - $C_6)$ -alkyl;
- R16 is OH, O- $(C_1-C_6)$ -alkyl, NH<sub>2</sub>;
- R7 is  $(CH_2)_{0-4}$ -R12, H,  $(C_1$ - $C_{12}$ )-alkyl,  $(C_3$ - $C_4$ )-cycloalkyl,  $(C_6$ - $C_8$ )-

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cycloalkyl,  $COO(C_1-C_6)$ -alkyl,  $COO(C_3-C_8)$ -cycloalkyl, where in the alkyl radicals or cycloalkyl radicals up to seven hydrogen atoms may be replaced by fluorine;

R8 is  $(CH_2)_{0-4}$ -R14,  $(C_1-C_{12})$ -alkyl,  $(C_3-C_4$ -cycloalkyl,  $(C_6-C_8)$ cycloalkyl, where in the alkyl or cycloalkyl radicals up to seven hydrogen atoms may be replaced by fluorine atoms;

R9, R12, R14 independently of one another are

phenyl, 1- or 2-naphthyl, or biphenyl, or a heterocyclic radical, where the rings or ring systems are in each case substituted up to three times by F, Cl, Br, I, CN, OH,  $O(C_1-C_8)$ -alkyl,  $O(C_3-C_8)$ -cycloalkyl, O-CO-( $C_1$ - $C_8$ )-alkyl, O-CO-( $C_3$ - $C_8$ )-cycloalkyl,  $S(O)_{0-2}(C_1$ - $C_8$ )-alkyl,  $S(O)_{0-2}(C_3$ - $C_8$ )-cycloalkyl, NH<sub>2</sub>, NH-( $C_1$ - $C_8$ )-alkyl, NH-( $C_3$ - $C_8$ )-cycloalkyl, N[( $C_1$ - $C_8$ )-alkyl]<sub>2</sub>, N[( $C_3$ - $C_8$ )-cycloalkyl]<sub>2</sub>, NH-CO-( $C_1$ - $C_8$ )-alkyl, NH-CO-( $C_3$ -C<sub>8</sub>)-cycloalkyl, SO<sub>3</sub>H; SO<sub>2</sub>-NH<sub>2</sub>, SO<sub>2</sub>-NH-(C<sub>1</sub>-C<sub>8</sub>)-alkyl, SO<sub>2</sub>-NH-(C<sub>3</sub>- $C_8$ )-cycloalkyl, NH-SO<sub>2</sub>-NH<sub>2</sub>; NH-SO<sub>2</sub>-( $C_1$ - $C_8$ )-alkyl, NH-SO<sub>2</sub>-( $C_3$ - $C_8$ )cycloalkyl; O-CH<sub>2</sub>-COOH, O-CH<sub>2</sub>-CO-O(C<sub>1</sub>-C<sub>8</sub>)-alkyl, COOH, CO- $O(C_1-C_8)$ -alkyl,  $CO-O-(C_3-C_8)$ -cycloalkyl,  $CO-NH_2$ ,  $CO-NH(C_1-C_8)$ alkyl,  $CO-N[(C_1-C_8)-alkyl]_2$ ;  $(C_1-C_8)$ -alkyl,  $(C_3-C_8)$ -cycloalkyl, where in the alkyl groups in each case one to seven hydrogen atoms may be replaced by fluorine;

and its physiologically acceptable salts.

Claim 3 (canceled) Divisional Application of Serial No. 10/231,362, filed August 30, 2002

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- Claim 4. (original) A pharmaceutical composition comprising one or more compounds as claimed in claim 1 and a pharmaceutically acceptable carrier.
- Claim 5. (original) The pharmaceutical composition according to claim 4, further comprising one or more active compounds for reducing weight in mammals.
- Claim 6. (original) A method for reducing weight in mammals, comprising administering to said mammal a compound of formula I as claimed in claim 1.
- Claim 7. (original) A method of treating obesity, comprising administering to a subject in need thereof, an effective amount of a compound of formula I as claimed in claim 1.
- Claim 8. (original) The method of claim 7, further comprising administering one or more active compounds for reducing weight in mammals.

Claims 9-10. (canceled)

- Claim 11. (original) A method of maintaining weight loss, comprising administering to a subject in need thereof, an effective amount of a compound of formula I as claimed in claim 1.
- Claim 12. (original) The method of claim 11, further comprising administering one or more active compounds for reducing weight in mammals.